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ABSTRACT

Graduates of a military-base extension program at the Naval Submarine Base, Bangor, Washington, leading to a Bachelor of Science degree in occupational education were studied. Graduates are prepared to teach their occupational specialty at colleges as well as for occupational education work in government, private enterprise, and health care agencies. In addition to classes and teaching internships, the program includes an extracurricular activities program that functions as a chapter of a professional organization. Graduates were queried about: the usefulness of competencies they learned; their post-degree employment and mobility in work and graduate school; and the effect of the program on their leadership and communication skills. High percentages of graduates reported upward mobility via promotions, pay increases in current work, attainment of new employment, entry into graduate school, and entry into commissioning programs for military officers. While all graduates reported increases in leadership and communication skills, those who participated in the extracurricular activities scored significantly higher on three-fourths of the traits studied . The questionnaire is appended. (SW)

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# GRADUATE FOLLOWUP: B.S. OCCUPATIONAL EDUCATION EXTENSION PROGRAM AT NAVAL SUBMARINE BASE BANGOR, WASHINGTON

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Department of Vocational Education Studies

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ABSTRACT

The Department of Vocational Education Studies, Southern Illinois University at Carbondale conducted a followup study of graduates in a unique extension program leading to a B.S. Degree in Occupational Education in which students not only take classes and perform teaching internships but also are encouraged to participate in a highly organized program of extracurricular activities which functions as a chapter of a professional organization. Graduates were queried on the extent to which competencies taught were useful, what their post-degree employment and mobility in work and graduate school were, whether they had participated in the extra-curricular program, and whether participation in the degree program and/or the extracurricular activities had an effect on their attainment of certain personal leadership and communications abilities and skills. Statistics were mainly descriptive, but Chi-Square testing was used to determine significance of extracurricular participation on leadership and communications skills. High percentages of graduates reported upward mobility via promotions pay increases in current work, attainment of new employment, entry into graduate school, and entry into commissioning programs. All graduates reported increases in leadership and communications skills, but those who particpated in the extracurricular activities scored significantly higher on three fourths of the traits on which questioned.

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# I

# INTRODUCTION

## Background

The Department of Vocational Education Studies (VES), Southern Illinois University at Carbondale (SIUC) has conducted an extension program leading to the Bachelor of Science Degree in Occupational Education for 17 years on military bases nationwide. The program purposes include preparing graduates to teach their occupational specialty in post-secondary institutions. Also, graduates of the program are prepared for employment in occupational education work in government, private business and industry, and health care organizations. Many military graduates of the program have been promoted or been commissioned as officers since degree attainment.

After initial development of any educational program, it is always in the best interests of both students and the institution to monitor the curriculum for needed improvement or updating. One suggested approach to this is to review competencies taught in the program and determine whether and how well graduates use them in their work, and whether graduates are employed in the field learned or in related work. Graduates of the VES program are a valuable resource for feedback for curriculum change, new information about the field, and whether the competencies gained were useful to themselves or employers.

## Purpose

The purposes of this study were to determine:

1. the extent to which competencies taught in VES courses were useful to graduates in their current employment,
2. recommendations for revision to the curriculum,
3. whether graduates were employed in the field of occupational education or other closely related fields,
4. whether graduates had gained promotion or better paid employment,
5. what percentage of graduates had entered graduate work in institutions of higher learning,
6. whether graduates had participated in an extracurricular student organization active at Bangor which was believed to be unique among extension programs, and
7. whether participation in the degree program and/or the extra-curricular organization had a percieved effect on graduates in
   a. time and task organization,
   b. on-the-job human relations skills,
   c. on-the-job team leadership/management skills, or
   d. oral and written on-the-job communication skills.

## Procedure

A survey instrument was developed to obtain graduate responses in the seven areas addressed in the purpose statement. The instrument was stamped and preaddressed to the researchers and required only that respondents complete the questionaire, fold, staple, and drop it in a mailbox. A cover

letter was prepared which explained the purpose and the importance of the survey and ws mailed with the questionnaire to all graduates of the VES program located at Naval Submarine Base Bangor, Washington.

After two weeks, a reminder letter was sent to non-respondents. Also, a second mailing was made to graduates whose questionnaire had been returned by the postal service with address corrections. After two more weeks, a second questionnaire and cover letter were mailed to all non-respondents. After an additional two weeks, the survey process was considered complete and responses were tabulated.

## Limitation

Since the sample was drawn from the population of graduates of only one of several extension centers located nationwide, it was not considered necessarily representative of graduates of all extension centers or of main campus graduates. The particular sample had characteristics as follows:

mean age: 33 years

mean work experience: 15 years

percentage in U.S. military: 57% (56% navy, 1% Army)

percentage civilian: 43% (24% retired Navy, 17% non-military)

percentage male: 93%

percentage female: 7%

Since it can be readily seen that these characteristics are not representative of the general student population, it was evident that survey results could not be generalized to reflect perceptions of all graduates.

## II

## RESULTS

The study had seven broadly stated purposes:

1. determine program competency usefulness,
2. determine curriculum revisions needed,
3. determine graduate employment,
4. determine graduate upward mobility in work,
5. determine graduate entry into graduate school,
6. determine participation in extracurricular activities, and
7. determine effects of program and extracurricular activities on certain personal skills and abilities.

Of the 94 graduates surveyed, 47 (50%) responded. Results relating to the above purposes are reported in an order slightly different from the above list for ease in reporting.

### Graduate Employment and Upward Mobility in Work and School

Graduates were asked whether their present position was in the field of occupational education, whether any duties related directly or indirectly to occupational education, whether they had received promotion or salary increases since degree completion, what effect completion of studies had on salary or promotion, and whether they had entered graduate school. Responses were as indicated in Tables 1 and 2. Nearly half (45%) had changed employer, more than half indicated work relating to occupational education either directly or indirectly, about one-third (30%) indicated entry into graduate work, and more than three-fourths indicated receiving a promotion or salary increase. Evidently graduates work and are upwardly mobile in the field they studied.

Table 1

Upward Mobility of Graduates

| Graduate Characteristics (Self Reported) | percentage yes | no |
|---|---|---|
| Changed Employer Since Degree Completion | 45% | 55% |
| Present Position is in Field of Occupational Education | 32% | 68% |
| Duties are Directly Related to Occupational Education | 77% | 23% |
| Duties or Job are Indirectly Related to Occupational Education | 60% | 40% |
| Promotion or Salary Increase Received Since Degree Completion | 77% | 23% |
| Entered Graduate Program | 30% | 70% |

Responding to whether degree completion had affected promotion or salary, 89% of respondents indicated an effect. Responses were summarized in Table 2.

Table 2

Effect of Degree Completion on Promotion/Salary Increase

| Effect | Percentage Reporting Effect |
|---|---|
| Direct Effect | 23% |
| Strong Effect | 32% |
| Mild Effect | 34% |
| No Effect | 11% |

Additionally, it was determined from non-questionnaire data gathered through personal interview that 15 of the total 94 graduates (16%) had entered U.S. Navy officer commissioning programs.

## Participation in Extracurricular Activities

When asked about extracurricular activity participation during degree program work, graduates responded as follows:

participated in most: 11%

participated in some: 51%

participated in none: 38%

## Improved Personal Abilities of Graduates

Graduates were asked if completion of the B.S. Degree had resulted in personal improved abilities in four categories. Responses were as indicated in Table 3. Approximately three-fourths or more indicated improvement in all traits.

Table 3

Improvement in Personal Traits

| | Reported Improvement | | |
|---|---|---|---|
| Personal Trait | Yes | No | Don't Know |
| Time and Task Organization Ability | 74% | 17% | 9% |
| On-The-Job Human Relations Skills | 74% | 15% | 11% |
| On-The-Job Team Leadership/Team Management Ability | 78% | 13% | 9% |
| Oral/Written On-The-Job Communication Skills | 85% | 11% | 4% |

## Extracurricular Activity and Personal Trait Improvements

Responses on each of the four personal traits/abilities on which graduates were queried were crosstabulated with responses on participation in extracurricular activities. A chi-square statistic was computed for each trait to determine whether those who participated in extracurricular activities reported significantly higher improvement on any trait compared with those who did not participate. See Table 4.

Table 4

Personal Trait Improvement vs. Extracurricular Activity Participation

| Personal Trait | N Who Reported Improvement Extracurricular Activity | | |
|---|---|---|---|
| | Participants | Non Participants | $x^2$ |
| Time and Task Organization Ability | 27 | 8 | 12.59* |
| On-the-Job human Relations Skills | 28 | 7 | 17.07* |
| On-the-Job Team Leadership/Team Mgmt Ability | 28 | 9 | 13.43* |
| On-the-Job Oral/Written Communications Skills | 25 | 15 | 2.83 |

df = 5 for all statistics *significant at 0.05 level

For three of the questioned traits, graduates self reported improvements indicated significantly higher numbers among those who participated in the extracurricular activities improved than among those who did not. The three traits on which extra-curricular participants improved in greater numbers were time and task organizing ability, on-the-job human relations skills, and on-the-job team leadership/team management ability. It was noted that a high percentage of graduates in both categories reported improvement on the fourth trait: on-the-job oral/written communicatons skills.

## Program Competency Usefulness

Graduates were given a list of eight competencies in terms of goal statements for coursework leading to the B.S. degree in occupational education and asked to rate each one in relation to their present work. The rating scale used was:

3 = very valuable

2 = valuable, used occasionally

1 = of some value, could be used

0 = not valuable, seldom or never used

Graduates mean responses to each competency item were tabulated. Results were as follows for each competency:

| | | $\bar{X}$ |
|---|---|---|
| 12. | Analysis of work and duties, determining job training requirements (knowledge, skill, attitudes), planning work related training activities | 2.06 |
| 13. | Prepare training materials, develop training activities, conduct training or education for work skills/knowledge | 2.16 |
| 14. | Define, develop, organize and manage work training, education or development programs | 2.29 |
| 15. | Plan/develop training plans or otherwise coordinate between production and training agencies for administering or conducting training; supervise trainees on the job | 2.00 |
| 16. | Assess training needs; evaluate training program or activity success | 2.16 |
| 17. | Apply knowledge or understanding of adult learner characteristics, motivation, learning processes and trainer-trainee relationships to teaching-learning situations | 2.17 |
| 18. | Plan, develop, use aids for testing trainee achievement in work knowledge, skills, attitudes; assess trainee progress | 2.02 |
| 19. | Identify work related problems, analyze possible solutions, develop and implement solutions, prepare written and oral reports | 2.62 |

III

# CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

## Conclusions and Discussion

### Graduate Employment

The majority of graduates performed duties directly or indirectly related to their field of study. Although only about one-third indicated a "present position" in the field of occuaptional education, approximately two-thirds or more indicated their duties or job were either directly or indirectly related to occupational education. Also, nearly half indicated a job change since completing the degree.

The SIUC VES degree program has a stated purpose of preparing graduates to teach their occupational specialty at post-secondary institutions or to work in occupational education in government, private industry or business. A large percentage of students entering the degree program at Bangor already work in adult training at the Navy's large training facility located there. It is not, then, surprising that the majority of graduates were employed in jobs that either directly or indirectly related to occupational education. It was, however, surprising, that such a large number of graduates had changed employers since attaining the degree, since nearly all students are satisfactorily employed while attending the program. The graduates were not asked why they had changed employers, so an answer is unknown. One could speculate that attainment of the degree led to a desire or opportunity for a "better" job. The question should be addressed in future studies.

Promotions and Better Paying Employment

Three-fourths (77%) of graduates had received a promotion or a salary increase since attaining the degree. More than half (55%) who reported a promotion or salary increase attributed it strongly or directly to degree completion.

Graduate School Entry

Approximately one-third of respondents indicated entry into graduate programs. No data was obtained from this study as to what programs or institutions were involved. However, a similar study conducted in 1985 (Adkins & Koehler) resulted in a list of ten institutions with M.S./M.A. and Ph.D. programs in seven areas including occupational education which graduates had entered. These were the University of Southern California (M.S.--management), Eastern Washington University (M.S.--Counseling), University of Puget Sound (MBA), Chapman College (M.S.--Human Resources Management, MBA), City University (MBA), Central Washington University (M.S.--Human Resources Development), Washington State University (Ph.D.--counseling), University of Washington (Ph.D.--Occupational Education), and two theological seminaries in the State of Washington.

Graduates were evidently of high enough caliber to be accepted by graduate schools and a large percentage of local graduates used the B.S. degree as a foundation for further education.

Communications, Leadership, and Human Relations Trait Improvement

The majority of graduates felt that completing the program had resulted in personal improvements in time and task organizing ability (74%), human relations skills on the job (74%), job team leadership/team

management skills (78%), and communications skills (85%). These skills, although not stated as program objectives, appear important and useful to them in their jobs. Indeed, all these abilities and skills are probably unstated objectives and expectations for graduates in any field of study at a university. What was unexpected on the part of some researchers here was the percentage (albeit small) who indicated they had not improved or did not know whether they had improved during their study. Future studies could well investigate this and also study whether graduates felt the reasons for non-improvement might be that they were already skilled in these areas before commencing study with SIUC.

Effects of Participation in Extracurricular Activities

A majority of graduates indicated they participated in at least some of the activities of the Bangor Occupational Education Advisory Committee while enrolled in the program. Chi-square testing indicated these students perceived their skills in time and task organization, human relations skills, and team leadership/team management had improved significantly more than those of students who had not participated. It should be noted that the Committee and its activities were much in the nature of a professional organization's local chapter might be. Future studies could well address what benefits (in more detail) graduates felt they attained and whether or not they they had maintained membership in that or another professional organization.

Major Competency Achievement and Usefulness

An evaluation of eight basic competencies in terms of stated goals for coursework in the program indicated that overall degree objectives

had been met. A mean response to each competency was computed and, for each competency, resulted in a mean of at least 2.02. On a scale of 0 (= not valuable, seldom or never used) to 3 (very valuable), all competencies had a mean score indicating they were at least "valuable, used occasionally." Apparently the goals of the program were being met: graduates indicated the competencies were both learned and useful in their work.

## Recommendations

Competencies taught in the program related to postsecondary occupational teaching as well as to other forms of work in occupational education, training, and development (ETD) in the government and private sector. Graduates indicated the competencies were both used and useful so it is recommended that present competencies continue to be taught. It is further recommended that present work on revising the curriculum to more strongly emphasize industry-education relationships and training program management be continued to completion.

Much data was obtained that would be useful in publicizing the the degree program value in terms of upward mobility in work and graduate school and in promotions and pay increases, including, for military students, entry in officer commissioning programs. It is recommended that this data be converted into publicity information. It should also be possible to make use of student interns with interests in public relations to assist in this work--both in development and dissemination. It is also recommended that the base coordinator refine the current placement file and consider use of interns to assist in this.

Participation in extracurricular activities of such highly organized types as take place at Bangor may be unique among extension programs.

Since, as noted, graduates gained benefits, an investigation of the feasibility of conducting such activities at other locations should commence. Also, the perceived benefits of participation in such activities should be publicized among Bangor students to stimulate increased participation. The coordinator (and coordinators at other extension sites) should investigate the possibility of using interns to assist in this.

Followup studies should continue on an annual basis at Bangor. Also, VES should conduct similar studies on a nationwide basis, possibly using graduate students at the main campus, to determine the following:

1. how graduates may differ among main campus and various sites,
2. job entry and upward mobility information,
3. degree program competency use and need in work,
4. what other benefits are obtained from completion of degree,
5. reasons for post-graduation employer changes,
6. what benefits accrue from extracurricular activity participation, and
7. whether membership in professional organizations is maintained by graduates.

## REFERENCE

Adkins, P. & Koehler, C.R. Graduate Followup: B.S.--Occupational Education Program. Bangor, WA: Department of Vocational Education Studies, Southern Ilinois University, unpublished, 1985.

APPENDIX

The following questions relate to graduate success and usefulness of the degree program to employment.

1. Have you changed employer since completing degree? ☐yes ☐no
2. Are any of your present duties related to occupational education? ☐yes ☐no
3. Is your present position (or duty assignment) in the field of occupational education? ☐yes ☐no
4. Is your present job (or duty assignment) indirectly related to occupational education? ☐yes ☐no
5. Since completing degree have you received a promotion or salary increase? (if yes, answer #6. If no, skip to #7) ☐yes ☐no
6. How do you believe completion of the B.S. degree affected your promotion/salary increase?

   ☐direct effect ☐strong effect ☐mild effect ☐no effect
7. Present employer _____
8. Present job (or duty) title _____
9. During degree work did you participate in activities sponsored by the Bangor Occupational Education Advisory Committee?

   ☐most of them ☐some of them ☐none of them
10. Has completion of B.S. degree resulted in personal improved abilities in:
    a. time and task organization? ☐yes ☐no ☐don't know
    b. on-the-job human relations skills? ☐yes ☐no ☐don't know
    c. on-the-job team leadership/team management? ☐yes ☐no ☐don't know
    d. oral and written on-the-job communication skills? ☐yes ☐no ☐don't know
11. Have you entered a graduate program? ☐yes ☐no

Listed below are eight competencies in terms of goal statements for coursework leading to the B.S. degree in occupational education. For each, indicate the value of the competency in relation to your present work. Circle the appropriate number--using the following as a guide:

3 = very valuable, used quite often
2 = valuable, used occasionally
1 = of some value, could be used
0 = not valuable, seldom or never used

12. Analysis of work and duties, determining job training requirements (knowledge, skill, attitudes), planning work related training activities. 3 2 1 0
13. Prepare training materials, develop and training activities, conduct training or education for work skills/knowledge. 3 2 1 0
14. Define, develop, organize and manage work training, education, or develop programs. 3 2 1 0
15. Plan/develop training plans or otherwise coordinate between production and training agencies for administering or conducting training; supervise trainees on the job. 3 2 1 0
16. Assess training needs; evaluate training program or activity success. 3 2 1 0
17. Apply knowledge or understanding of adult learner characteristics, motivation, learning processes and trainer-trainee relationships to teaching-learning situations. 3 2 1 0
18. Plan, develop, use aids for testing trainee achievement in work knowledge, skills, attitudes; assessing trainee progress. 3 2 1 0
19. Identify work related problems, analyze possible solutions, develop and implement solutions, prepare written and oral reports. 3 2 1 0

Thanks for participating. Please fold, staple and insert in nearest mailbox.





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June 2, 1986

Dear SIU Graduate,

As a graduate of the SIU C program in occupational education, you are aware of the value of graduate followup. You were selected as a candidate to participate in this survey as your opinions are valuable to this program. This survey is intended to solicit information on the value of the contents of this program and your perceptions of its strengths, weaknesses and overall usefulness as it relates to employment in this field.

This is a Bangor graduate followup. You might be interested in knowing that Bangor graduates have had more impact on program improvement than those from any other base. Our entire curriculum is now undergoing revision, so please help, as you have in the past. Enclosed is a brief questionnaire. Please take the five minutes necesary to complete this document.

Remember, your opinion has been requested because it is valuable. Thank you for your assistance. Please fold the completed questionnaire so that the stamp and return label are visible, fasten with tape or a staple and drop in the nearest mailbox.

Sincerely,

C. Russell Koehler & D. Bruce Whitley